

Forecasting Trends in Regional Aviation

Steven Davis-Mendelow, Ph.D. FAA Commercial Aviation Conference, March 13, 2002



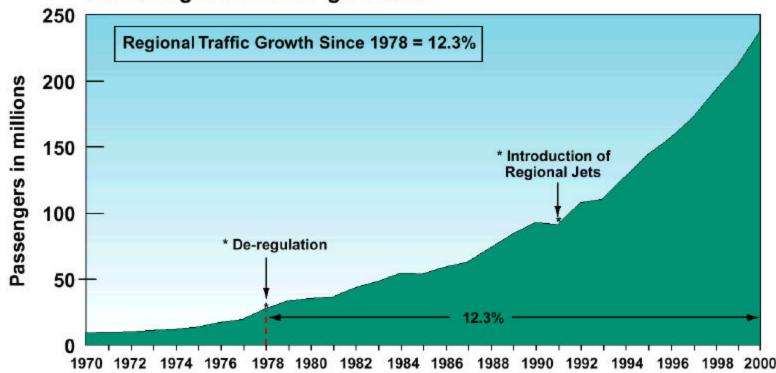


The Regional Marketplace



World Regional Passenger Traffic Enplanements 1970-2000





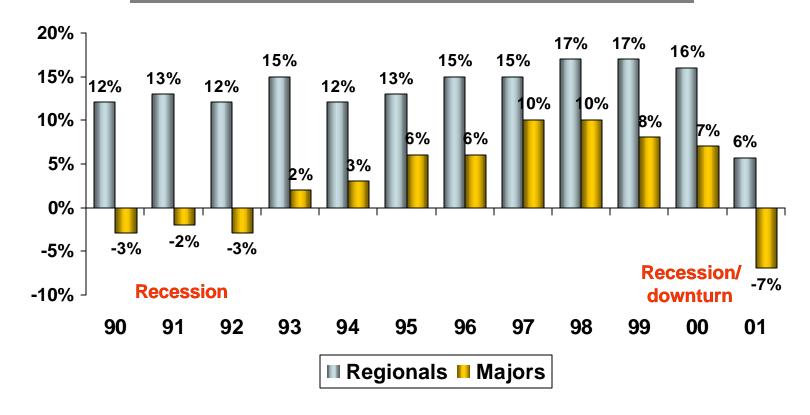
Continued Strong Growth in Regional Traffic





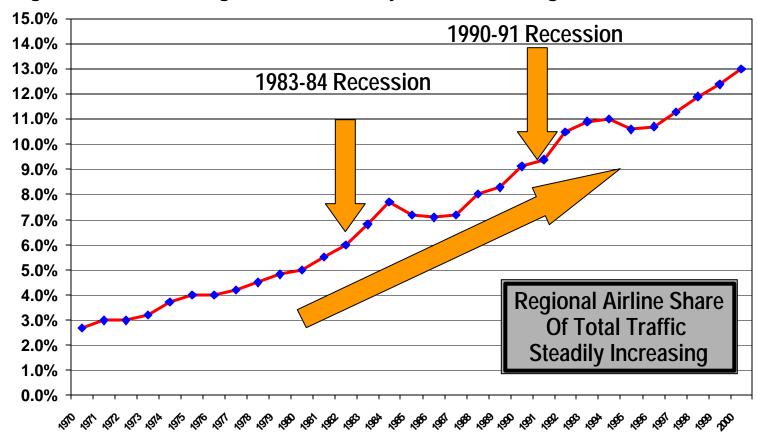
U.S. regional airlines have consistently been more profitable than majors

Operating Margins - U.S. Regionals vs. Majors



Regional Airlines Share of Traffic Improves During Downturns

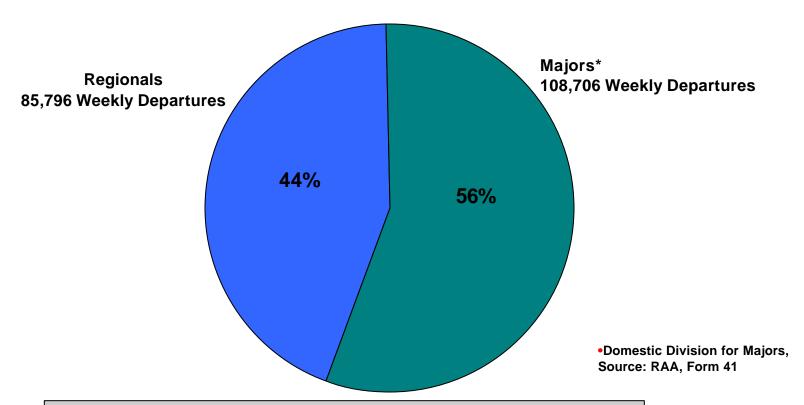
US Regional Airline Passengers as % of US Major Airline Passengers



Source: US DOT & RAA



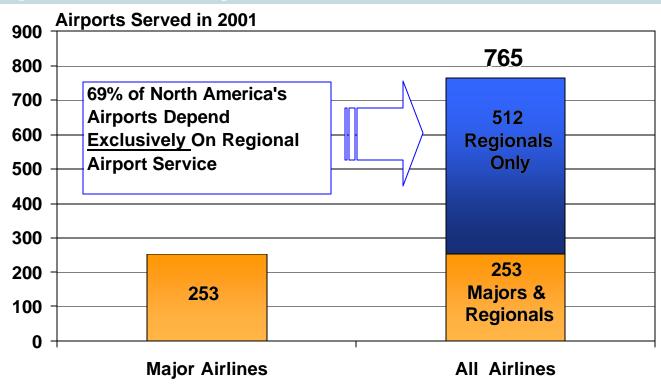
US Weekly Departures, 2000



Almost Half of All Commercial Airline Flights Are By Regional Aircraft



Airline Service at North American Airports, January 2001



Regional Airlines Are Essential To Our Air Transportation System

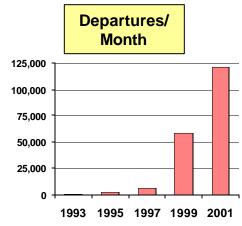
Source: RAA

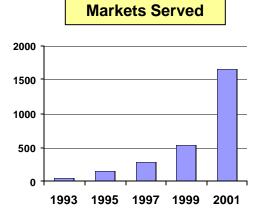


Regional Jet Network Growth – North America



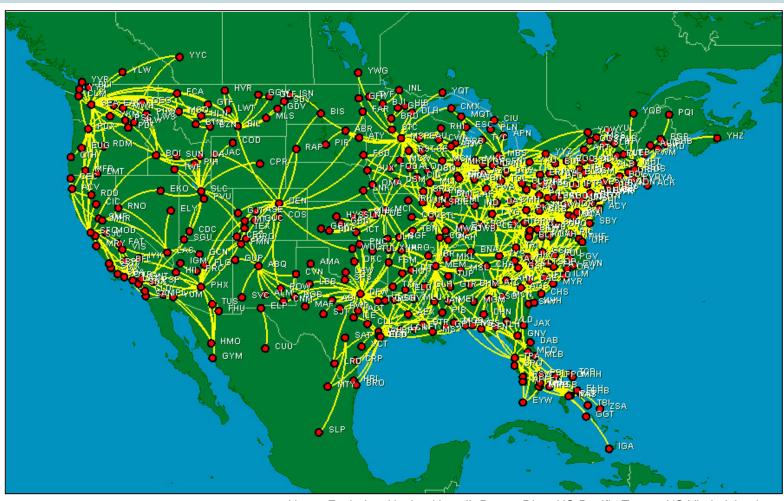








Turboprops Still At The Core U.S. Turboprop Routes – March 2002



Note: Excludes Alaska, Hawaii, Puerto Rico, US Pacific Trusts, US Virgin Islands

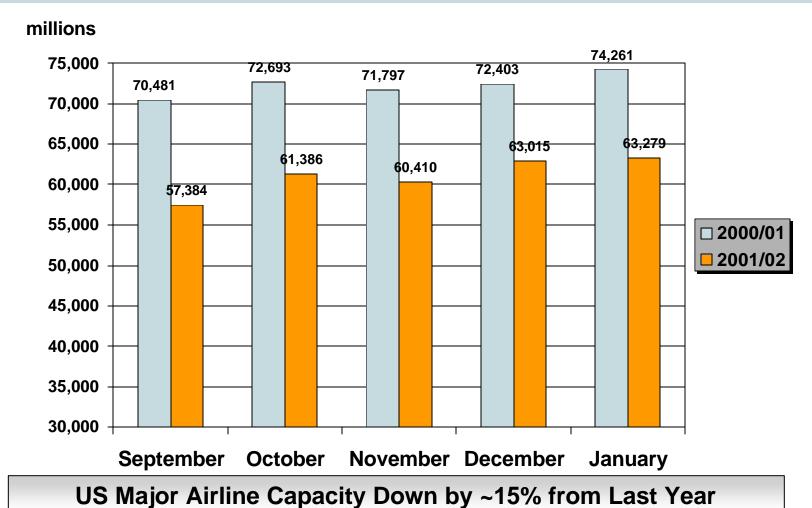




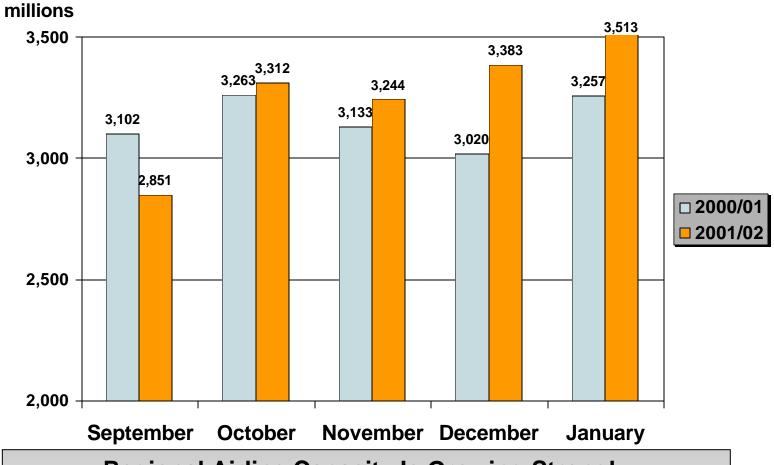
The Regional Market in 2002



Capacity (ASM) Progression – US Major Airlines



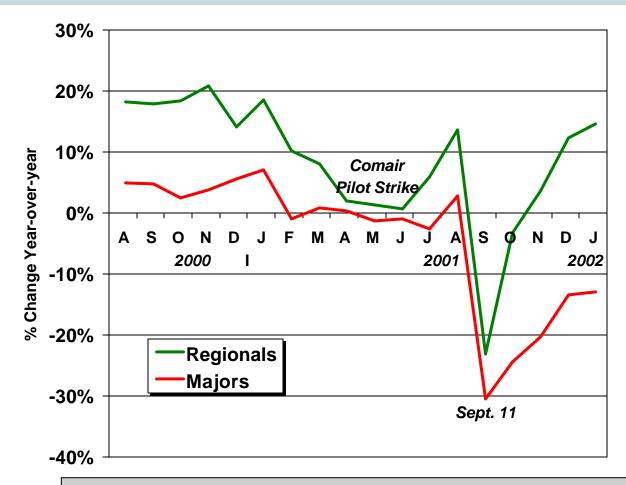
Capacity (ASM) Progression – All Reporting US Regional Airlines



Regional Airline Capacity Is Growing Strongly
Past Last Year's Levels



Traffic (RPM) Growth – U.S. Regional vs. Majors



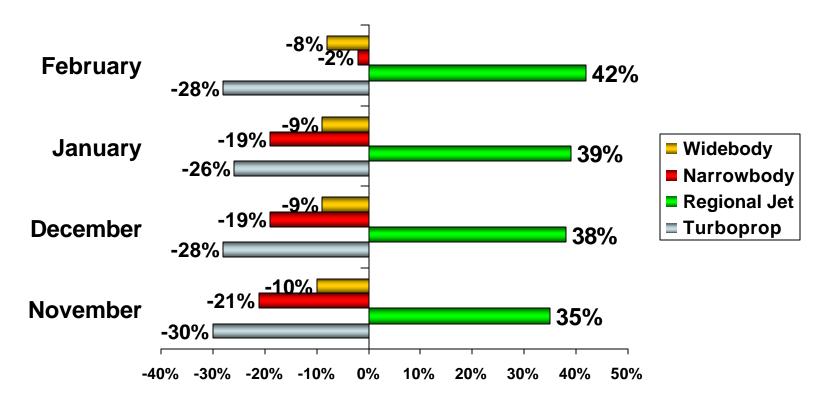
Sources: The Airline Monitor & Company Reports

Rapid Traffic Recovery for Regional Airlines



Regional Jet Service Continues to Increase Over The Previous Year – North America

Monthly Scheduled Departures: 2001/2 vs. 2000/1

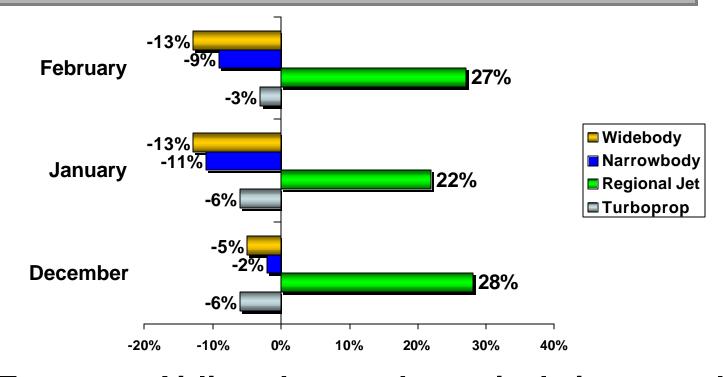


includes American, Continental, Delta, Northwest, United and US Airways Source: Innovata



Schedule Comparison (Year-over-Year) European Airlines (AF, BA, IB, LH, SK)

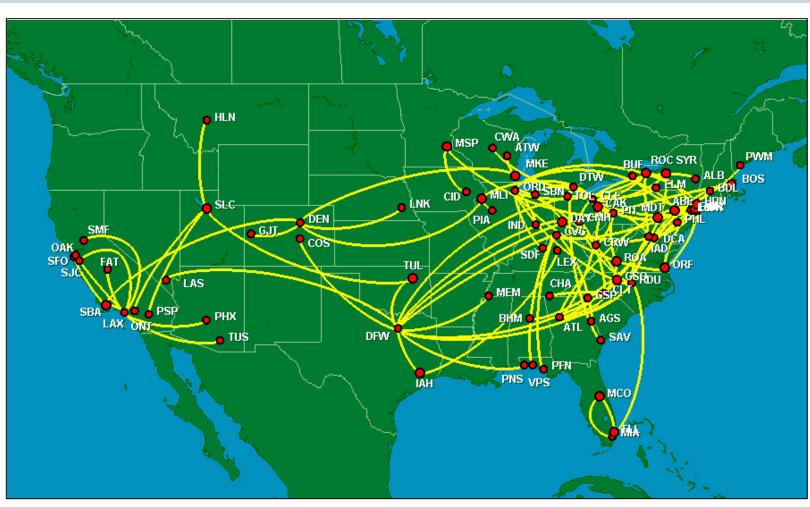
Monthly Scheduled Departures: 2001/2 vs. 2000/1



European Airlines have substantively increased use of Regional Jets since Sept 11th.



Added RJ Routes Post September 11, 2001









Regional Airlines Fly Jets & Turboprops

AIR CANADA











Lufthansa







Jets & Turboprops
Are Complementary

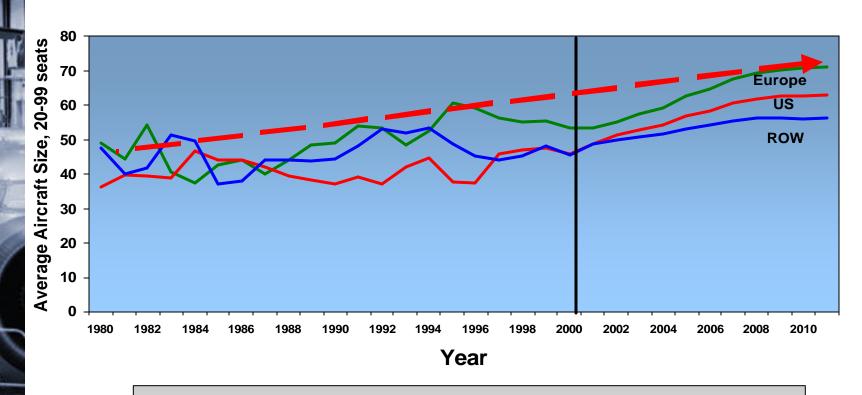




Looking Forward



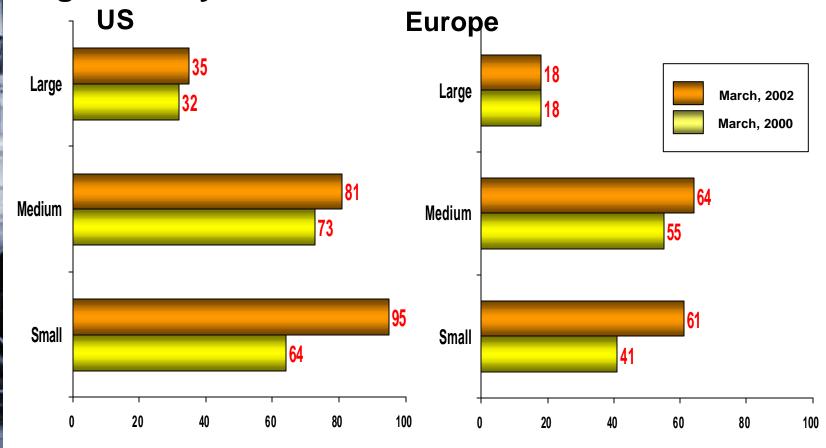
Regional Market Has Trended to Larger Capacity Aircraft Since "Deregulation"



Average Worldwide Regional Aircraft Size Forecast to Grow to 63 Seats by 2011



RJ Service to Small Airports Has Increased Significantly



Count of Airports With RJ Service

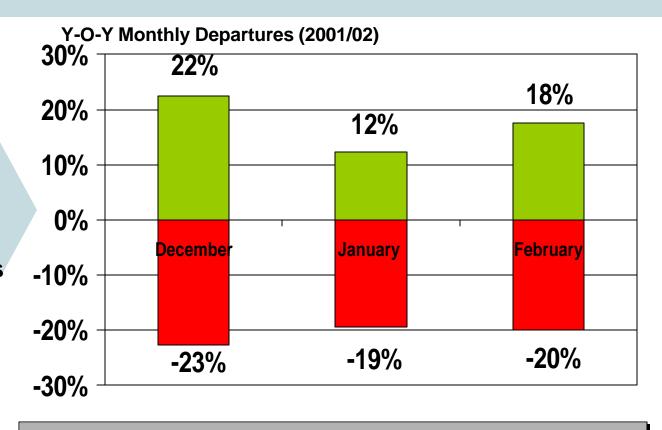


Source: Innovata

European Switch to New Generation Turboprops



New Generation Turboprop Use Increasing in Europe



■ Out-of-Production □ In Production (Dash 8Q Series & ATR)

European Airlines (AF, BA, IB, LH, SK) Source: Innovata

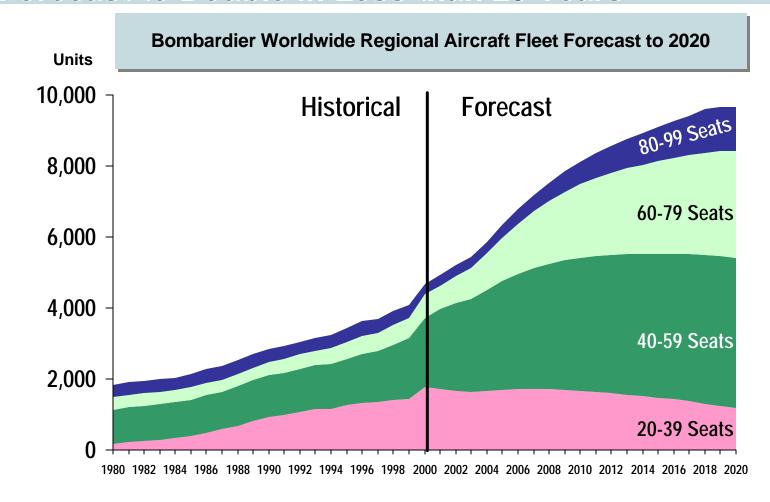


Q400 Approved for London City Airport (LCY)



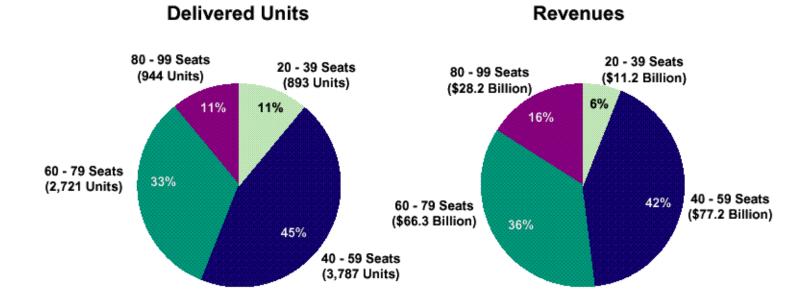


Worldwide Regional Aircraft Fleet Forecast to Double in Less than 20 Years





Worldwide Delivery Forecast, 2001-2020



Delivery Units = 8,345

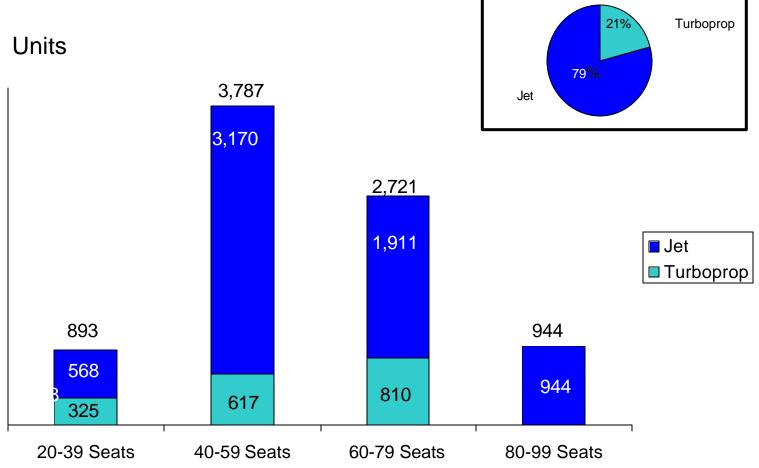
Revenues* = \$183 Billion US

MPD1134.A *2001 US Dollars



Worldwide Delivery Forecast

Turboprop-Jet Split 20-90 Seats, 2001-2020





20-99 Seats, Total Delivery: 8,345 Units

Dash 8Q Series One Turboprop Family from 37 to 78 Seats

U.S. Airways



SAS



Horizon Air



Augsburg Airways



Tyrolean



British European





CRJ Series One RJ Family from 40 to 90 Seats





Bombardier Regional Aircraft Family



Bombardier Q100/200



Bombardier Q300



Bombardier Q400



Bombardier CRJ200



Bombardier CRJ700



Bombardier CRJ900